RULE 4653 ADHESIVES AND SEALANTS (Adopted March 17, 1994; Amended April 13, 1995; Amended March 19, 1998; Amended December 14, 2000; Amended December 20, 2001; Amended September 20, 2007; Amended September 17, 2009; Amended September 16, 2010; Amended [*rule adoption date*])

1.0 Purpose

The purpose of this rule is to reduce emissions of volatile organic compounds (VOCs) from the application of adhesive products, sealant products, and associated solvent cleaning operations.

2.0 Applicability

This rule is applicable to any person who supplies, sells, offers for sale, or applies any adhesive product, sealant product, or associated solvent, used within the District.

3.0 Definitions

The following definitions apply for the purpose of this rule.

3.1 ABS Welding Adhesive: an adhesive that is intended by the manufacturer to weld acrylonitrile butadiene styrene (ABS) plastic. ~~ABS is made by reacting monomers of acrylonitrile, butadiene, and styrene and is normally identified with ABS marking.~~

3.2 Acrylic: a thermoplastic polymer or copolymer of acrylic acid, metha~~r~~crylic acid, esters of these acids, or acrylonitrile.

3.3 Acrylonitrile-Butadiene-Styrene (ABS): a plastic made by reacting monomers of acrylonitrile, butadiene, and styrene and is normally identified with ABS marking.

3.4 Acrylonitrile-Butadiene-Styrene (ABS) ~~w~~Welding: a process used to weld acrylonitrile-butadiene-styrene ~~pipe~~parts.

3.5 Adhesive: a ~~substance~~product intended by the manufacturer to be applied for the purpose of bonding two surfaces together other than by mechanical means.

3.6 Adhesive Primer: a product intended by the manufacturer for application to a substrate, prior to the application of an adhesive, to provide a bonding surface.

3.7 Adhesive Product: an adhesive product includes, but is not limited to adhesives, glues, cements, mastic, adhesive bonding primers, adhesive primers, adhesive primers for plastics, and any other adhesive primer.

3.8 Aerosol Adhesive or Adhesive Primer: an adhesive or adhesive primer packaged as an aerosol product in which the spray mechanism is permanently housed in a non-

refillable can designed for handheld application without the need for ancillary hoses or spray equipment.

3.9 Airless Spray: a spray method in which a pump forces the adhesive through an atomizing nozzle at high pressure (1,000 to 6,000 psi).

3.10 Air Pollution Control Officer (APCO): as defined in Rule 1020 (Definitions).

3.11 Appurtenances: an accessory to a stationary structure, whether installed or detached. Appurtenances include but are not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

3.12 Application Equipment: a device, including, but not limited to, a spray gun, brush, and roller, used to apply adhesives, sealants, coatings, or inks.

3.13 ARB: California Air Resources Board.

3.14 Architectural: pertaining to stationary structures including buildings, houses, and mobile homes, and their appurtenances.

3.15 Architectural Sealant: a sealant intended by the manufacturer to be applied on stationary structures, including mobile homes, and their appurtenances.

3.16 Architectural Sealant Primer–Nonporous: a sealant primer intended by the manufacturer to be applied to nonporous material surfaces on stationary structures, including mobile homes, and their appurtenances.

3.17 Architectural Sealant Primer–Porous: a sealant primer intended by the manufacturer to be applied to porous material surfaces on stationary structures, including mobile homes, and their appurtenances.

3.18 ASTM: <u>ASTM International, formerly known as the</u> American Society for Testing and Materials.

3.19 Automotive Glass Primer: an adhesive primer intended by the manufacturer to be applied to automotive glass prior to installation of an adhesive/sealant that improves adhesion to the pinch weld and blocks ultraviolet light used at a facility that is not an automobile or light-duty truck assembly coating facility pursuant to District Rule 4602.

3.20 Bench Scale Project: a project (other than at a research and development facility) that is operated on a small scale, such as one capable of being located on a laboratory bench top.

3.21 Carpet Pad Adhesive: an adhesive intended by the manufacturer to be used for the installation of a carpet pad (or cushion) beneath a carpet.

3.22 Cellulosic Plastics: a plastic containing the naturally occurring polymer or polysaccharide, cellulose ($C_6H_{10}O_5$). Examples include, but are not limited to, cellulose acetate, cellulose acetate butyrate, cellulose nitrate and cellulose propionate.

3.23 Cellulosic Plastic Welding Adhesive: an adhesive intended by the manufacturer for welding of cellulosic plastic, and labeled as such.

3.2423 Ceramic Tile: ceramic surfacing unit made from clay or a mixture of clay and other materials.

3.2524 Ceramic Tile Installation Adhesive: an adhesive that is intended by the manufacturer to be used for installation of ceramic tiles.

3.2625 CFR: Code of Federal Regulations.

3.2726 Chlorinated Polyvinyl Chloride Plastic (CPVC plastic): a polymer of the vinyl chloride monomer that contains 67% chlorine and is normally identified with a CPVC marking.

3.2827 Chlorinated Polyvinyl Chloride Welding (CPVC welding) Adhesive: an adhesive intended by the manufacturer for welding of chlorinated polyvinyl chloride plastic, and labeled as such.

3.2928 Coating: a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

3.3029 Contact Adhesive: an adhesive, also known as Contact Bond Adhesive, that is intended by the manufacturer for application to both surfaces to be bonded together, is allowed to dry before the two surfaces are placed in contact with each other, forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other, and does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces. Contact adhesive does not include rubber cements that are primarily intended for use on paper substrates. Contact adhesive also does not include vulcanizing fluids that are designed and labeled for tire repair only.

3.31~~30~~ Contact Adhesive-Specialty: a contact adhesive that is intended by the manufacturer to be used for the bonding of nonporous substrates to each other, the bonding of decorative laminate in post-forming applications, the bonding of decorative laminate to metal, melamine-covered board, or curved surfaces, or the bonding of any substrate to metal, rubber, rigid plastic, or wood veneer not exceeding 1/16 inch in thickness.

3.32~~31~~ Cove Base: a flooring trim unit, generally made of vinyl or rubber, having a concave radius on one edge and a convex radius on the opposite edge that is used in forming a junction between the bottom wall course and the floor or to form an inside corner.

3.33~~32~~ Cove Base Installation Adhesive: an adhesive intended by the manufacturer to be used for the installation of cove base or wall base on a wall or vertical surface at floor level.

3.34~~33~~ Cured Adhesive, Cured Coating, or Cured Ink: an adhesive, coating, or ink that is dry to the touch.

3.35~~34~~ Cyanoacrylate Adhesive: an adhesive with a cyanoacrylate content of at least 95 percent by weight.

3.36~~35~~ Dry Wall Adhesive: an adhesive intended by the manufacturer to be used during the installation of gypsum dry wall to studs or solid surfaces.

3.37~~36~~ Elastomeric Adhesive: a rubber or thermoplastic based adhesive intended by the manufacturer to be used in the manufacture of life preserving equipment including, but not limited to, aircraft float systems, life rafts, and life jackets; or other personal or equipment protection products.

3.38~~37~~ Ethylene Propylene Diene Monomer (EPDM) Roof Membrane: a prefabricated sheet of elastomeric material composed of ethylene propylene diene monomer and that is field applied to a building roof using one layer or membrane material.

3.39~~38~~ EPA: United States Environmental Protection Agency.

3.40~~39~~ Exempt Compound: a compound identified as exempt under the definition of VOC, in Rule 1020 (Definitions).

3.41~~40~~ Fiberglass: fine filaments of glass.

3.42~~41~~ Flexible Vinyl: a nonrigid polyvinyl chloride plastic with at least five percent, by weight of plasticizer content.

3.43 Flexible Vinyl Adhesive: an adhesive intended by the manufacturer for bonding of flexible vinyl, and labeled as such

3.44~~42~~ Foam: a rigid or spongy cellular mass with gas bubbles dispersed throughout.

3.4543 Floor Covering Installation: installation of wood flooring, carpet, floor tile, or artificial grass. Floor covering installation does not include ceramic tile installation or perimeter bonded sheet flooring installation.

3.4644 Glue: a hard gelatin obtained from hides, tendons, cartilage, bones, or other parts of animals.

3.4745 Grams of VOC per Liter of Adhesive Product, Excluding Water and Exempt Compounds: the weight of VOC per combined volume of VOC and coating solids, calculated using the following equation:

$$\text{Grams of VOC per Liter of Adhesive Product, Excluding Water and Exempt Compounds} = \frac{W_s - W_w - W_{ec}}{V_m - V_w - V_{ec}}$$

Where:

W_s = weight of volatile compounds, in grams
W_w = weight of water, in grams
W_{ec} = weight of exempt compounds, in grams
V_m = volume of material, in liters
V_w = volume of water, in liters
V_{ec} = volume of exempt compounds, in liters

3.4846 Grams of VOC per Liter of Material: the weight of VOC per volume of material, calculated using the following equation:

$$\text{Grams of VOC per Liter of Material} = (W_s - W_w - W_{ec}) / V_m$$

Where:

W_s = weight of all volatile compounds, in grams
W_w = weight of water, in grams
W_{ec} = weight of exempt compounds, in grams
V_m = volume of the material, in liters

3.4947 High Precision Optics: optical elements used in electro-optical devices which are designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.

3.5048 High-Volume, Low-Pressure (HVLP) Spray Equipment: equipment used to apply materials by means of a spray gun which is designed and intended to be operated, and which is operated, between 0.1 and 10.0 psig of air atomizing pressure, measured dynamically at the center of the air cap and the air horns.

3.5149 Indoor Carpet Adhesive: an adhesive intended by the manufacturer to be used during the installation of a carpet that is in an enclosure and is not exposed to ambient weather conditions during normal use.

3.5250 Indoor Floor Covering Installation Adhesive: an adhesive intended by the manufacturer for use in the installation of wood flooring, carpet, resilient tile, vinyl tile, vinyl backed carpet, resilient sheet and roll or artificial grass. Adhesives used to install ceramic tile and perimeter bonded sheet flooring with vinyl backing onto a non-porous substrate, such as flexible vinyl, are excluded from this category.

3.5351 Inkjet Printer Head Assembly Operation: an operation used to manufacture or assemble the printer head used on inkjet printers. Inkjet printing is a printing method where the liquid ink is transferred at high velocity through a small diameter opening(s) to a substrate.

3.5452 Laminate: a product made by bonding together two or more layers of material.

3.5553 Liquid Leak: a visible solvent leak from a container at a rate of more than three drops per minute, or a visible liquid mist.

3.5654 Low-Solids Adhesive Product: an adhesive or adhesive primer that contains less than 120 grams of solids per liter of material.

3.5755 Maintenance Cleaning: the cleaning of tools, forms, molds, jigs, machinery, and equipment (except coating application equipment, ink application equipment, or adhesive application equipment), and the cleaning of work areas where maintenance or manufacturing occurs.

3.5856 Manufacturing Process: the process of making goods or articles by hand or by machine.

3.5957 Marine Deck Sealant/Primer: a sealant or sealant primer intended by the manufacturer to be applied to wooden marine deck.

3.6058 Medical Device: an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article including any component or accessory, that is intended for use in the diagnosis of disease or other conditions or in the cure, mitigation, treatment, or prevention of disease, or is intended to affect the structure or any function of the body.

3.6159 Medical Equipment Manufacturing: the manufacture of medical devices, including, but not limited to, catheters, heart valves, blood cardioplegia machines, tracheostomy tubes, blood oxygenators, and cardiatory reservoirs.

3.6260 Metal to Urethane/Rubber Molding or Casting Adhesive: an adhesive intended by the manufacturer to bond metal to high density or elastomeric urethane or molded

rubber materials, in a heated molding or casting processes, to fabricate products such as rollers for computer printers or other paper handling equipment.

3.63~~61~~ Modified Bituminous Sealant Primer: a primer that consists of bituminous materials, and a high flash solvent used to prepare a surface by (1) improving the adhesion and (2) absorbing dust from the surface for adhesive, or flashing cement bitumen membrane.

3.64~~62~~ Modified Bituminous Material: materials obtained from natural deposit of asphalt or residues from the distillation of crude oil petroleum or coal which consist mainly of hydrocarbons, and include, but are not limited to, asphalt, tar, pitch, and asphalt tile that are soluble in carbon disulfide.

3.65~~63~~ Motor Vehicle Adhesive: an adhesive, including glass bonding adhesive, used at a facility that is not an automobile or light-duty truck assembly coating facility pursuant to District Rule 4602, that is intended by the manufacturer to be applied for the purpose of bonding two vehicle surfaces together without regard to the substrates involved.

3.66~~64~~ Motor Vehicle Glass Bonding Primer: a primer, used at a facility that is not an automobile or light-duty truck assembly coating facility pursuant to District Rule 4602, applied to windshield or other glass, or to body openings, to prepare the glass or body opening for the application of glass bonding adhesives or the installation of adhesive bonded glass. Motor vehicle glass bonding primer includes glass bonding/cleaning primers that perform both functions (cleaning and priming of the windshield or other glass, or body openings) prior to the application of adhesive or the installation of adhesive bonded glass.

3.67~~65~~ Motor Vehicle Weatherstrip Adhesive: an adhesive, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to weatherstripping materials for the purpose of bonding the weatherstrip material to the surface of the vehicle.

3.68~~66~~ Multipurpose Construction: the installation or repair of construction materials including, but not limited to, drywall, subfloor, paneling, baseboards, fiberglass, ceiling tiles, and ceiling panels.

3.69~~67~~ Multipurpose Construction Adhesive: an adhesive intended by the manufacturer for use in the installation or repair of various construction materials, including but not limited to drywall, subfloor, panel, fiberglass reinforced plastic (FRP), ceiling tile and acoustical tile. ~~Effective on and after January 1, 2012, d~~Drywall, subfloor, and panel adhesives are not ~~longer~~ considered Multipurpose Construction Adhesive, each would be considered its own adhesive category with VOC content limits pursuant to Section 5.1 of this rule.

3.70~~68~~ Non-Absorbent Container: a container made of non-porous material that does not allow the migration of solvents through it.

3.71~~69~~ Non-Atomized Solvent Flow: a solvent in the form of a liquid stream without the introduction of any propellant.

3.72~~70~~ Non-Leaking Container: a container without a liquid leak.

3.73~~71~~ Non-Membrane Roof Adhesive: an adhesive intended by the manufacturer to be used for the installation or repair of non-membrane roofs. This category includes plastic or asphalt roof cement, asphalt roof coatings and cold application cement.

3.74~~72~~ Non-Membrane Roof Sealant: a sealant intended by the manufacturer to be used for installation or repair of non-membrane roofs. This category includes plastic or asphalt roof cement, asphalt roof coatings, and cold application cement.

3.75~~73~~ Organic Solvent: the same as "Solvent."

3.76~~74~~ Organic Solvent Cleaning: an activity, or operation, or process, (including surface preparation, cleanup, or wipe cleaning), performed outside of a degreaser, that uses organic solvent to remove uncured adhesives, uncured coatings, uncured inks or other contaminants, including, but not limited to, dirt, soil, oil, lubricants, coolants, moisture, fingerprints, and grease, from parts, products, tools, machinery, application equipment and general work areas. Cleaning spray equipment used for the application of coatings, adhesives, or ink, is also considered to be organic solvent cleaning.

3.77~~75~~ Outdoor Carpet Adhesive: an adhesive used during the installation of carpet that is not in an enclosure and is exposed to ambient weather conditions during normal use.

3.78~~76~~ Outdoor Floor Covering Installation Adhesive: an adhesive intended by the manufacturer for use in the installation of floor covering that is not in an enclosure and that is exposed to ambient weather conditions during normal use.

3.79~~77~~ Panel Installation: the installation of plywood, pre-decorated hardboard, tileboard, fiberglass, reinforced plastic, and similar pre-decorated or non-decorated panels to studs or solid surfaces.

3.80~~78~~ Panel Installation Adhesive: an adhesive intended by the manufacturer to be used for the installation of plywood, pre-decorated hardboard (or tileboard), fiberglass reinforced plastic, and similar pre-decorated or non-decorated panels to studs or solid surfaces using an adhesive formulated for that purpose.

3.81~~79~~ Paper-Based Gaskets: a gasket made of paper that forms a mechanical seal in the space between two mating surfaces.

3.82~~80~~ Percent VOC by Weight: the ratio of the weight of the VOC to the weight of the material, expressed as a percentage. The percent VOC by weight can be calculated as follows:

$$\% \text{ VOC weight} = \frac{W_v \times 100}{W_m}$$

Where:
W_v = weight of VOCs, in grams
W_m = weight of material, in grams

3.83~~81~~ Perimeter Bonded Sheet Flooring Installation: the installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip of up to four inches wide around the perimeter of the sheet flooring.

3.84~~82~~ Plastic Cement Welding Adhesive: an adhesive also called Plastic Solvent Welding Adhesive, intended by the manufacturer for use to dissolve plastic surfaces to form a bond between mating surfaces.

3.85~~83~~ Plastic Cement Welding Adhesive Primer: an adhesive primer intended by the manufacturer to prepare plastic substrates prior to the application of an adhesive for bonding or welding.

3.86~~84~~ Plastic Foam: a foam constructed of plastic material

3.87~~85~~ Plasticizer: a material, such as a high boiling point organic solvent, that is incorporated into an adhesive to increase its flexibility, workability, or distensibility.

3.88~~86~~ Plastic: a synthetic material chemically formed by the polymerization of organic (carbon-based) substances. Plastics are usually compounded with modifiers, extenders, and/or reinforcers and are capable of being molded, extruded, cast into various shapes and films, or drawn into filaments.

3.89~~87~~ Polyvinyl Chloride Plastic (PVC plastic): a polymer of the chlorinated vinyl monomer that contains 57% chlorine.

3.90~~88~~ Polyvinyl Chloride Welding Adhesive (PVC Welding Adhesive): an adhesive intended by the manufacturer for use in the welding of PVC plastic pipe.

3.91~~89~~ Porous Material: a material with surfaces permeable to liquids. Examples of porous materials include, but are not limited to paper and cardboard. For purposes of this rule, porous material does not include wood.

3.92~~90~~ Pre-formed Rubber Product: a rubber product which has undergone a vulcanization process and is in its final state for further use and is not intended to be vulcanized any further.

3.93~~91~~ Propellant: any gas, including air, in a pressure container for expelling the contents when the pressure is released.

3.94~~92~~ Reinforced Plastic Composite: a composite material consisting of plastic reinforced with fibers.

3.95~~93~~ Repair Cleaning: a solvent cleaning operation or activity carried out during a repair process.

3.96~~94~~ Repair Process: the process of returning a damaged object or an object not operating properly to good condition.

3.97~~95~~ Research and Development: a facility or portion thereof used to further the development of useful materials, devices, systems, or methods, including, but not limited to, design, development, and improvement of prototypes and processes. Research and development does not include the manufacturing process itself.

3.98~~96~~ Roadway Sealant: a sealant intended by the manufacturer to be applied to streets, highways, and other surfaces, including but not limited to curbs, berms, driveways, and parking lots.

3.99~~97~~ Rubber: a natural or manmade rubber substrate, including but not limited to styrene-butadiene rubber (SBR), polychloroprene (neoprene), butyl rubber, nitrile rubber, chlorosulfonated polyethylene (CSM), and ethylene propylene diene terpolymer.

3.100~~98~~ Rubber Flooring Adhesive: an adhesive that is intended by the manufacturer to be used for the installation of flooring material in which both the back and the top surface are made of synthetic rubber, and which may be in sheet or tile form.

3.101~~99~~ Rubber Stock Sheet: a cured, uncured or partially cured rubber sheets which are not in their final state of intended use.

3.102~~100~~ Rubber Vulcanization Adhesive/Primer: an adhesive product intended by the manufacturer to bond rubber to metal, rubber, or polyester or nylon fabrics during the following vulcanization processes:

3.102~~100~~.1 Molded V~~v~~ulcanization: the application of heat and pressure to uncured rubber in a mold;

3.102~~100~~.2 Sheet-applied Vulcanization: the application of heat after rubber stock sheets have been adhered to the walls of tanks, tankers, elbow joints, protective earthquake building pads, or rail cars; or the

application of heat after one or more layers of rubber stock sheets have been built-up to form a rubber product;

3.102~~100~~.3 Cold V~~v~~ulcanization: the chemical reaction of an adhesive with rubber stock sheets that are adhered to earthmoving equipment, other high impact/abrasion devices, or industrial belting devices, without the application of heat or pressure.

3.103~~101~~ SCAQMD: South Coast Air Quality Management District.

3.104~~102~~ Scientific Instrument: an instrument (including the components, assemblies, and subassemblies used in their manufacture) and associated accessories and reagents which are used for the detection, measurement, analysis, separation, synthesis, or sequencing of various compounds.

3.105~~103~~ Sealant: a material with adhesive properties that is intended by the manufacturer primarily to fill, seal, or waterproof gaps or joints between two surfaces. Sealants include sealant primers and caulks.

3.106~~104~~ Sealant Primer: a product intended by the manufacturer to be applied to a substrate, prior to the application of a sealant, to enhance the bonding surface.

3.107~~105~~ Sealant Product: sealant products include, but are not limited to, sealants and sealant primers.

3.108~~106~~ Sheet Rubber Lining Installation: the process of applying sheet rubber liners by hand to metal or plastic substrates to protect the underlying substrate from corrosion or abrasion. These operations also include laminating sheet rubber to fabric by hand.

3.109~~107~~ Single-ply Roof Membrane: a prefabricated sheet of rubber, normally ethylene-propylene diene terpolymer that is applied to a building roof using one layer of membrane material. For the purposes of this rule, single-ply roof membrane does not include membranes prefabricated from ethylene-propylene diene monomer (EPDM).

3.110~~108~~ Single-ply Roof Membrane Installation: the use of adhesive products to apply one layer of roofing membrane.

3.111~~109~~ Single-ply Roof Membrane Installation and Repair Adhesive: an adhesive intended by the manufacturer, and labeled, for use in the installation or repair of single-ply roof membrane. Installation includes, as a minimum, attaching the edge of the membrane to the edge of the roof and applying flashings to vents, pipes and ducts that protrude through the membrane. Repair includes gluing the edges of torn membrane together, attaching a patch over a hole and reapplying flashings to vents, pipes or ducts installed through the membrane.

3.112~~110~~ Single-ply Roof Membrane Adhesive Primer: a primer intended by the manufacturer for use to clean and promote adhesion of the single-ply roof membrane seams or splices prior to bonding, and labeled as such.

3.113~~111~~ Single-ply Roof Membrane Sealant: a sealant intended by the manufacturer to be used for the installation or repair of single-ply roof membrane to the edge of the roof and applying flashings to vents, pipes, or ducts that protrude through the membrane.

3.114~~112~~ Solvent: as defined in Rule 4663 (Organic Solvent Cleaning, Storage, and Disposal).

3.115~~113~~ Solvent Flushing: the use of a solvent to remove uncured adhesives, uncured inks, uncured coatings, or contaminants from the internal surfaces and passages of equipment by flushing solvent, by a non-atomized solvent flow, through the equipment.

3.116~~114~~ Solvent Welding: the softening of the surfaces of two substrates by wetting them with solvents and/or adhesives, and joining them together with a chemical and/or physical reaction(s) to form a fused union.

3.117~~115~~ Staple and Nail Manufacturing Adhesive: an adhesive that is intended by the manufacturer to bond industrial staples into a clip or to be applied to industrial nails to produce collated nails.

3.118~~116~~ Stationary Source: as defined in Rule 2201 (New and Modified Stationary Source Review Rule).

3.119~~117~~ Stripping: the use of solvent to remove material such as cured adhesives, cured inks, cured or dried paint, cured or dried paint residue or temporary protective coating.

3.120~~118~~ Structural Glazing: a process that includes the application of adhesives to bond glass, ceramic, metal, stone, or composite panels to the exterior of a building.

3.121~~119~~ Structural Wood Member Adhesive: an adhesive intended by the manufacturer to be used for the construction of a load – bearing joint in wooden joists, trusses, or beams.

3.122~~120~~ Styrene-Acrylonitrile Welding Adhesive: an adhesive intended by the manufacturer to weld styrene-acrylonitrile co-polymer plastics. Bonding of styrene-acrylonitrile to any other substrate (such as metal) is not included under this plastic welding adhesive subcategory.

3.123~~121~~ Subfloor Installation: the installation of subflooring material over floor joists, including the construction of any load bearing joists. Subflooring is covered by a finish surface material.

3.124~~122~~ Surface Preparation: the removal of contaminants from a surface prior to the application of coatings, inks, or adhesives or before proceeding to the next step of a manufacturing process.

3.125~~123~~ Surface Preparation Solvent: a VOC containing material used to remove dirt, oil, and other contaminants. This surface cleaning is typically done prior to the application of an adhesive product.

3.126~~124~~ Thin Metal Laminating Adhesive: an adhesive intended by the manufacturer for use in bonding multiple layers of metal to metal or metal to plastic on the production of electronic or magnetic components in which the thickness of the bond line(s) is less than 0.25 millimeters.

3.127~~125~~ Thinner: a solvent that is used to dilute coatings to reduce viscosity, color strength, and solids, or to modify drying conditions.

3.128~~126~~ Tire Repair: a process that includes expanding a hole, tear, fissure, or blemish in a tire casing by grinding or gouging, applying adhesive and filling the hole or crevice with rubber.

3.129~~127~~ Tire Retread: the process of tire retreading is where adhesives are applied to the back of precured tread rubber and to the casing and cushion rubber. It may also be used to seal buffed tire casings to prevent oxidation while the tire is being prepared for a new tread.

3.130~~128~~ Top and Trim Adhesive: an adhesive intended by the manufacturer to be used for installing automotive or marine trim, including, but not limited to headliners, vinyl tips, vinyl trims, sunroofs, dash covering, door covering, floor covering, panel covering and upholstery.

3.131~~129~~ Traffic Marking Tape: a pre-formed reflective tape intended by the manufacturer to be applied to public streets, highways, and other surfaces, including but not limited to curbs, berms, driveways, and parking lots.

3.132~~130~~ Traffic Marking Tape Adhesive Primer: an adhesive primer intended by the manufacturer to be applied to surfaces prior to installation of traffic marking tape.

3.133~~131~~ Transfer Efficiency: the ratio of the weight or volume of coating solids adhering to an object to the total weight or volume, respectively, of coating solids used in the application process.

3.134~~132~~ Vinyl Composition Tile (VCT): a material made from thermoplastic resins, fillers, and pigments.

3.135~~133~~ Volatile Organic Compound (VOC): as defined in Rule 1020 (Definitions).

3.136~~134~~ VCT and Asphalt Tile Adhesive: an adhesive intended by the manufacturer for the installation of vinyl composite tile or asphalt tile flooring.

3.137~~135~~ Waste Solvent Material: a solvent which may contain dirt, oil, metal particles, sludge, and/or waste products, or wiping material containing VOCs including, but not limited to, paper, cloth, sponge, rag, or cotton swab used in organic solvent cleaning.

3.138~~136~~ Waterproof Resorcinol Glue: a two-part, resorcinol-resin-based adhesive intended by the manufacturer for applications where the bond line must be resistant to conditions of continuous immersion in fresh or salt water.

3.139~~137~~ Wipe Cleaning: a solvent cleaning activity performed by hand rubbing an absorbent material such as a rag, paper, sponge, brush, or cotton swab containing solvent.

3.140~~138~~ Wood Flooring Adhesive: an adhesive intended by the manufacturer to be used to install a wood floor surface, including but not limited to, parquet tiles and wood planks.

3.141~~139~~ Wood Parquet Flooring: a wood flooring in tile form constructed of smaller pieces of wood which are joined together in a pattern by the manufacturer to form the tile.

3.142~~140~~ Wood Plank Flooring: a wood flooring in plank form constructed of solid or laminated wood.

4.0 Exemptions

4.1 The provisions of this rule shall not apply to:

4.1.1 A stationary source that uses 20 gallons or less of adhesives products in a calendar year shall not be subject to Sections 5.1.1, 5.1.2, 5.1.3, and to the adhesives portion of Sections 5.1.5 and 5.2 through 5.6. Commercial and industrial operations exempted by this section shall maintain monthly records documenting the type and quantity of adhesive products and solvents used and provide the records to the District upon request.

4.1.2 The use of adhesive products or sealant products containing less than 20 grams VOC per liter.

~~4.1.3 Effective through December 31, 2010, the testing and evaluation of adhesives in research laboratories, analytical laboratories, or quality assurance laboratories. Laboratory operators shall maintain monthly records documenting the type and quantity of adhesive products used and provide the records to the District upon request. Effective on and after January 1, 2011, laboratory operators shall comply with the requirements of Section 4.2.~~

4.1.3~~4~~ The use of adhesives in tire repair provided the label states "for tire repair use only."

~~4.1.5 Effective through December 31, 2010, the use of adhesives that are sold or supplied with 8 fluid oz. or less of adhesive in non-reusable containers. Effective on and after January 1, 2011, operators shall comply with the applicable requirements of Section 4.2.~~

4.1.4~~6~~ The use of aerosol spray adhesive products.

4.1.5~~7~~ Household adhesive products subject to Article 2, Consumer Products, Sections 94507 - 94517, Title 17, California Code of Regulations.

4.1.6~~8~~ Adhesive products subject to the VOC limit requirements of Rule 4605 (Aerospace Assembly and Component Coating Operations), Rule 4607 (Graphic Arts), and Rule 4681 (Rubber Tire Manufacturing). ~~Effective on and after January 1, 2011, a~~Adhesive products subject to the VOC limit requirements of Rule 4605 (Aerospace Assembly and Component Coating Operations) will be subject to work practices required pursuant to Section 5.3.

4.1.7~~9~~ Contact adhesives that are subject to the Consumer Product Safety Commission regulations in 16 CFR, Part 1302, that have a flash point greater than 20°F as determined pursuant to those regulations, and that are sold in packages that contain 128 fluid ounces or less.

4.1.8~~10~~ Stripping of cured adhesives, except the stripping of such materials from spray application equipment.

4.1.9~~11~~ A stationary source that uses 20 gallons or less of sealant products in a calendar year shall not be subject to Section 5.1.4, and to the sealant portion of Sections 5.1.5 and 5.2 through 5.6. Commercial and industrial operations exempted by this section shall maintain monthly records documenting the type and quantity of sealant products and solvents used and provide the records to the District upon request.

4.1.10~~12~~ Except for the work practices required pursuant to Section 5.3, and 5.6, the provisions of this rule shall not apply to the testing and evaluation of sealant products in research laboratories, analytical laboratories, or quality assurance laboratories. Laboratory operators claiming exemption

under this section shall maintain monthly records documenting the type, quantity, and VOC content of sealant products used, the amount and VOC content of solvents. Records shall be retained in accordance with provisions of Section 6.1.5.

4.2 ~~Effective on and after January 1, 2011,~~ T~~t~~he provisions of this rule, except for the work practices required pursuant to Sections 5.3 and 5.6 shall not apply to:

4.2.1 The testing and evaluation of adhesives in research laboratories, analytical laboratories, or quality assurance laboratories. Laboratory operators shall maintain monthly records documenting the type and quantity of adhesive products used and provide the records to the District upon request.

4.2.2 The use of adhesives that are sold or supplied with 8 fluid oz. or less of adhesive in non-reusable containers.

4.2.3 The use of aerosol adhesive or aerosol adhesive primer products.

4.2.4 Adhesive products used in assembly, repair, or manufacture of undersea-based weapon systems.

4.2.5 Adhesive products used in medical equipment manufacturing operations.

4.2.6 Cyanoacrylate adhesive application processes.

4.2.7 Processes using polyester bonding putties to assemble fiberglass parts at fiberglass boat manufacturing facilities and at other reinforced plastic composite manufacturing facilities.

4.3 Except for the records required in Section 6.1.3, the prohibition of sale in Section 5.7 shall not apply to the following:

4.3.1 Adhesive products and sealant products shipped, supplied, or sold exclusively to persons outside the District for use outside the District.

4.3.2 Adhesive products and sealant products sold to any person who complies with the requirements of Section 5.4.

4.4 The VOC content limits of Table 5~~6~~ shall not apply to the following applications:

4.4.1 Cleaning of solar cells, laser hardware, scientific instruments, or high precision optics.

4.4.2 Cleaning in laboratory tests and analyses, or bench scale or research and development projects.

4.4.3 Cleaning of clutch assemblies where rubber is bonded to metal by means of an adhesive.

4.4.4 Cleaning of paper-based gaskets.

5.0 Requirements

5.1 Adhesive and Sealant VOC Content Limits

5.1.1 Except as provided under Section 5.1.1.1, ~~T~~the VOC content of adhesive products used for specific applications shall not exceed the following limits, expressed as grams of VOC per liter of adhesive product, excluding water and exempt compounds, or grams of VOC per liter of material for low-solids adhesive products, as applied:

~~Table 1 - VOC Content Limits for Adhesive Products (Effective through December 31, 2011)~~

~~Applications~~	~~VOC Limit Effective through December 31, 2010. (Grams Per Liter)~~	~~VOC Limit Effective on and after January 1, 2011. (Grams Per Liter)~~
~~Multipurpose Construction~~	~~200~~	~~200~~
~~Floor Covering Installation~~	~~150~~	~~150~~
~~Ceramic Tile Installation~~	~~130~~	~~130~~
~~Perimeter Bonded Sheet Flooring Installation~~	~~660~~	~~660~~
~~Single-Ply Roof Membrane~~Material Installation	~~250~~	~~250~~
~~Structural Glazing~~	~~100~~	~~100~~
~~ABS Welding Adhesive~~	~~400~~	~~400~~
~~CPVC Welding Adhesive~~	~~490~~	~~490~~
~~PVC Welding Adhesive~~	~~510~~	~~510~~
~~Other Plastic Cement Welding Adhesive~~	~~450~~	~~450~~
~~Plastic Cement Welding Adhesive Primer~~	~~650~~	~~650~~
~~Adhesive Primers~~	~~250~~	~~250~~
~~Staple and Nail Manufacturing~~	~~640~~	~~640~~
~~Contact Adhesive~~	~~250~~	~~250~~
~~Contact Adhesive - Specialty~~	~~250~~	~~250~~
~~Rubber Vulcanization Adhesive/Primer~~	~~850~~	~~850~~
~~Waterproof Resorcinol Glue~~	~~170~~	~~170~~
~~Tire Retread~~	~~N/A~~	~~100~~
~~Cove Base Installation~~	~~250~~	~~150~~

Table 1~~2~~ - VOC Content Limits for Adhesive Products ~~(Effective on and after January 1, 2012)~~	
Applications	VOC limit (Grams Per Liter)
Architectural Adhesive Products:	
Multipurpose Construction	70
Ceramic Tile Adhesive	65
Cove Base Installation	50
Dry Wall and/or Panel Adhesive	50
Flooring Adhesives:	
Floor Covering Installation	150
Ceramic Floor Tile Installation	65
Indoor Carpet Adhesive	50
Carpet Pad Adhesive	50
Outdoor Carpet Adhesive	150
Rubber Flooring Adhesive	60
Perimeter Bonded Sheet Flooring Installation	660
Subfloor Adhesive	50
VCT and Asphalt Tile Adhesive	50
Wood Flooring Adhesive	100
Roofing Adhesives:	
Single-Ply Roof Membrane~~Material~~ Installation	250
Non-Membrane Roof Adhesive	300
Structural Glazing	100
Structural Wood Member Adhesive	140
Miscellaneous Adhesives:	
Contact Adhesive	80
Contact Adhesive – Specialty	250
Rubber Vulcanization Adhesive/Primer	850
Tire Retread	100
Motor Vehicle Adhesive	250
Motor Vehicle Weatherstrip Adhesive	750
Traffic Marking Tape Adhesive~~s~~/ Primer	150
Top and Trim Adhesive	540
Waterproof Resorcinol Glue	170
Staple and Nail Manufacturing Adhesive	640
Thin Metal Laminating Adhesive	780
Elastomeric Adhesive	750
Flexible Vinyl Adhesive	250

Table 1~~2~~ - VOC Content Limits for Adhesive Products continued ~~(Effective on and after January 1, 2012)~~	
Applications	VOC Limit (Grams per Liter)
Plastic Welding Products	
ABS Welding Adhesive	325
Cellulosic Plastic Welding Adhesive	100
CPVC Welding Adhesive	490
PVC Welding Adhesive	510
Styrene-Acrylonitrile Welding Adhesive	100
Plastic Cement Welding Adhesive Primer	400
Other Plastic Cement Welding Adhesive	250
Adhesive Primers:	
Automotive Glass Primer	700
Adhesive Primer	250

5.1.1.1 The VOC content of PVC Welding Adhesive shall not exceed 500 g/L, expressed as grams of VOC per liter of adhesive product, excluding water and exempt compounds, as applied upon satisfaction of both Sections 5.1.1.1.1 and 5.1.1.1.2 for the applicable 2008 or 2015 8-hour Ozone National Ambient Air Quality Standard:

5.1.1.1.1 EPA has issued final approval of this section as a contingency measure in the California State Implementation Plan for the San Joaquin Valley, and such approval has become effective; and

5.1.1.1.2 Following the effective date of EPA's approval described in Section 5.1.1.1.1, EPA has issued a final determination that any one of the contingency-triggering conditions specified in Sections 172(c)(9) or 182(c)(9) of the Clean Air Act have occurred with respect to the applicable ozone standard.

5.1.1.1.3 Upon satisfaction of Sections 5.1.1.1.1 and 5.1.1.1.2, the VOC content limit of 500 g/L for PVC welding adhesive shall automatically apply sixty (60) days following the effective date of EPA's first, final determination described in 5.1.1.2, without further action by the District or EPA.

5.1.2 The VOC content of adhesive products, except as provided in Section 5.1.1, shall not exceed the following limits, expressed as grams of VOC per liter of adhesive product, excluding water and exempt compounds, or grams of VOC per liter of material for low-solids adhesive products, as applied:

Table 2~~3~~ - VOC Content Limits for Adhesive Products			
Material Bonded	~~VOC Limit Effective through December 31, 2010. (Grams Per Liter)~~	~~VOC Limit Effective on and after January 1, 2011. (Grams Per Liter)~~	VOC Limit ~~Effective on and after January 1, 2012.~~ (Grams Per Liter)
Metal to Metal	~~30~~	~~30~~	30
Porous Materials	~~120~~	~~120~~	50
Plastic Foam	~~120~~	~~120~~	50
Wood	~~30~~	~~30~~	30
Pre-formed Rubber Products	~~250~~	~~250~~	250
Reinforced Plastic Composite	~~250~~	~~200~~	200
Fiberglass	~~-~~	~~-~~	80
All other Substrates	~~250~~	~~250~~	250

5.1.3 The higher of the two limits from Table 2~~3~~ applies to the bonding of two dissimilar substrates.

5.1.4 The VOC content of sealant products used for specific applications shall not exceed the following limits, expressed as grams of VOC per liter of sealant product, excluding water and exempt compounds, or grams of VOC per liter of material for low-solids sealant products, as applied:

Table 3~~4~~ - VOC Content Limits for Sealants	
Sealant	VOC Limit ~~Effective on and after January 1, 2012.~~ (Grams Per Liter)
Architectural	250
Marine Deck	760
Non-membrane Roof	300
Roadway	250
Single-Ply Roof Membrane	450
Other Sealants	420

Table 4~~5~~ - VOC Content Limits for Sealant Primers	
Sealant Primer	VOC Limit ~~Effective on and after January 1, 2012.~~ (Grams Per Liter)
Architectural Non Porous	250
Architectural Porous	775
Modified Bituminous	500
Marine Deck	760
Other Sealant Primers	750

5.1.5 In lieu of complying with the applicable requirements of Sections 5.1.1 through 5.1.4, an operator may control VOC emissions from adhesive product or sealant product application operations with a VOC emission control device that meets the requirements of Section 5.4.

5.2 Adhesive and Sealant Application Equipment

An operator shall use only the following equipment to apply adhesives and sealants:

5.2.1 Electrostatic Application

5.2.2 Flow Coater

5.2.3 Roll Coater

5.2.4 Dip Coater

5.2.5 Hand Application Methods

5.2.6 Airless Spray

5.2.7 HVLP Spray

5.2.7.1 HVLP spray equipment shall be operated in accordance with the manufacturer's recommendations.

5.2.7.2 For HVLP spray guns manufactured prior to January 1, 1996, the end user shall demonstrate that the gun meets HVLP spray equipment standards. Satisfactory proof will be either in the form of manufacturer's published technical material or by a demonstration using a certified air pressure tip gauge, measuring

the air atomizing pressure dynamically at the center of the air cap and at the air horns.

5.2.7.3 A person shall not sell or offer for sale for use within the District any HVLP spray gun without a permanent marking denoting the maximum inlet air pressure in psig at which the gun will operate within the parameters specified in Section 3.0.

5.2.8 Any other application method that demonstrates, to the satisfaction of the APCO and EPA, a coating transfer efficiency equivalent to or greater than the efficiency achieved by an HVLP spray gun as measured using a test method in Section 6.3.6.

5.2.9 Air-atomized spray may only be used for the application of contact adhesives or specialty contact adhesives.

5.2.10 In lieu of complying with the applicable requirements in Sections 5.2.1 through 5.2.9, an operator may control emissions from adhesive and sealant~~coating~~ application equipment with an APCO-approved VOC emission control system that controls the emissions from the source operation and that meets the requirements of Section 5.4.

5.3 Work Practices for Adhesive Products and Sealant Products

The operator shall implement the following work practices when participating in adhesive-related and sealant-related activities. ~~Effective on and after January 1, 2012, the operator shall implement the work practices pursuant to Section 5.3.1 through 5.3.4 when participating in sealant-related activities.~~

5.3.1 An operator shall store or dispose of adhesive products, sealant products, catalysts, thinners, fresh or spent solvents, and waste solvent materials such as cloth, paper, etc., in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. The containers used for disposal of adhesive materials, solvents, or any unused VOC containing materials shall be self-closing.

5.3.2 Ensure that mixing containers for used VOC-containing adhesive products and sealant products and process-related waste materials are kept closed at all times except when depositing or removing these materials.

5.3.3 Minimize spills of VOC-containing adhesive products, and sealant products, and process-related waste materials.

5.3.4 Convey VOC-containing adhesive products, sealant products, and process-related waste materials from one location to another in closed containers or pipes.

5.4 VOC Emission Control System Requirements

5.4.1 In lieu of the applicable requirements of Section 5.1, 5.2, or 5.5, an operator may install and maintain a VOC emission control system that meets all of the requirements of Sections 5.4.2 through 5.4.4.

5.4.2 The VOC emission control system shall be approved by the APCO.

5.4.3 The VOC emission control system shall be operated with an overall capture and control efficiency of at least 85 percent by weight, as determined in accordance with Section 6.3.

5.4.4 In no case shall compliance through the use of a VOC emission control system result in VOC emissions in excess of the VOC emissions which would result from compliance with the applicable requirements of Sections 5.1, 5.2, or 5.5.

5.4.5 The minimum required overall capture and control efficiency of a VOC emission control system at which an equivalent or greater level of VOC reduction will be achieved shall be calculated by using the following equation:

$$CE = \left[1 - \left(\frac{VOC_{LWc}}{VOC_{LWn,\mathrm{Max}}} \, x \, \frac{1 - \left(VOC_{LWn,\mathrm{Max}} / D_{n,\mathrm{Max}} \right)}{1 - \left(VOC_{LWc} / D_c \right)} \right) \right] x \, 100$$

Where:

CE	=	Minimum Required Overall Capture and Control Efficiency, in percent
VOC_{LWc}	=	VOC Limit, less water and less exempt compounds
$VOC_{LWn,Max}$	=	Maximum VOC content of noncompliant adhesive product used in conjunction with a control device, less water and less exempt compounds
$D_{n,Max}$	=	Density of solvent, reducer, or thinner contained in the noncompliant adhesive product, containing the maximum VOC content
D_c	=	Density of corresponding solvent, reducer, or thinner used in the compliant adhesive products

5.5 Organic Solvent Cleaning Requirements

5.5.1 An operator shall not use organic solvents for cleaning operations associated with adhesive products or sealant products that exceed the VOC

content limits specified in Table 5~~6~~. ~~Effective on and after January 1, 2012 an operator shall not use organic solvents for cleaning operations associated with sealant products that exceed the VOC content limits specified in Table 6.~~

Table 5~~6~~ – VOC Limits for Organic Solvents Used in Cleaning Operations	
Type of Solvent Cleaning Operation	VOC Content Limit Grams of VOC/liter of material (lb/gal)
A. Product Cleaning During Manufacturing Process or Surface Preparation for Adhesive Application	
1. General	25 (0.21)
2. Surface Preparation Prior to Rubber Vulcanization Process	850 (7.1)
B. Repair and Maintenance Cleaning	25 (0.21)
C. Cleaning of Adhesive Application Equipment	25 (0.21)

5.5.2 In lieu of complying with the requirements in Table 5~~6~~, an operator may control VOC emissions from cleaning operations with an APCO-approved VOC emission control system that meets the requirements of Section 5.4.

5.5.3 An operator performing Table 5~~6~~ Category A.2 cleaning using solvent with VOC content greater than 25 grams per liter and the cleaning takes place outside the control of an APCO-approved VOC emission control system shall meet the requirements of Sections 5.5.4 through 5.5.6 in addition to the meeting the applicable VOC content limit of Table 5~~6~~.

5.5.4 Cleaning activities that use solvents shall be performed by one or more of the following methods:

5.5.4.1 Wipe cleaning; or

5.5.4.2 Application of solvent from hand-held spray containers from which solvents are dispensed without a propellant-induced force; or

5.5.4.3 Non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or

5.5.4.4 Solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping.

5.5.5 Solvent shall not be atomized into the open air unless it is vented to a VOC emission control system that complies with Section 5.4. This provision shall not apply to the cleaning of nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with spray bottles or containers described in Section 5.5.4.2.

5.5.6 An operator shall not use VOC-containing materials to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing and draining procedures, and it must be used according to the manufacturer's recommendations and must be closed when not in use.

5.5.7 In lieu of complying with the applicable requirements of Sections 5.5.4 through 5.5.6, an operator shall install and maintain a VOC emission control system that meets the requirements of Section 5.4 to control emissions from the solvent cleaning operation.

5.6 Work Practices for Solvent Cleaning

The operator shall implement the following work practices when participating in organic solvent cleaning activities:

5.6.1 Minimize spills of VOC-containing cleaning materials.

5.6.2 Convey VOC-containing cleaning materials from one location to another in closed containers or pipes.

5.6.3 Minimize VOC emissions from cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

5.6.4 An operator shall store or dispose of cleaning materials, fresh or spent solvents, and waste solvent materials such as cloth, paper, etc., in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. The containers used for disposal of adhesive materials, solvents, or any unused VOC containing materials shall be self-closing.

5.7 Prohibition of Sale

Except as provided in Section 4.3, no person shall supply, sell, or offer for sale any adhesive product or sealant product that does not meet the limits as specified in Section 5.1 or 5.4.

5.8 Sell-Through of Adhesives and Sealants

5.8.1 An adhesive product or sealant product manufactured prior to the effective date specified for that product in Section 5.1, may be sold, supplied, or offered for sale for up to 12 months after the specified effective date.

5.8.2 An adhesive product or sealant product manufactured prior to the effective date specified for that product in Section 5.1 may be applied up to 24 months after the specified effective date.

5.8.3 Sections 5.8.1 and 5.8.2 only apply to those adhesive products or sealant products which are labeled to display the date or date code indicating when the product was manufactured and that complied with the standards in effect at the time the product was manufactured.

5.9 Prohibition of Specification

No person shall solicit, require for use, or specify the application of any adhesive products or sealant products, if such use or application results in a violation of the provisions of this Rule. This prohibition shall apply to all written or oral contracts.

6.0 Administrative Requirements

6.1 Recordkeeping

6.1.1 An operator subject to Section 5.1 or 5.5 shall maintain the following records:

6.1.1.1 Records of the VOC content, in grams VOC per liter, of all adhesive materials used and stored at the stationary source.

6.1.1.2 Records of the VOC content of all solvents used and stored at the stationary source.

6.1.1.3 ~~Effective on and after January 1, 2012, r~~Records of the VOC content, in grams VOC per liter, of all sealant materials used and stored at a stationary source.

6.1.2 VOC Emission Control System Records

An operator using a VOC emission control device as a means of complying with this rule shall maintain daily records of key system operating parameters

which will demonstrate continuous operation and compliance of the emission control system during periods of emission producing activities. Key system operating parameters are those necessary to ensure compliance with VOC limits. The parameters may include, but are not limited to, temperatures, pressures, and flow rates.

6.1.3 Prohibition of Sale Exemption Records

An operator who claims exemption under Section 4.3 shall maintain records for all adhesive products and sealant products sold that do not meet the limits as specified in Section 5.1. The records shall include the following information:

6.1.3.1 Type, quantity, and VOC content, in grams per liter, of the adhesive products or sealant products sold.

6.1.3.2 Name, address, and telephone number of the persons to whom the adhesive products or sealant products are sold.

6.1.4 Solvent Cleaning Records

An operator subject to Section 5.5 shall also comply with the following recordkeeping requirements:

6.1.4.1 Keep a copy of the manufacturer's product data sheet or material safety data sheet of the solvents used for organic solvent cleaning activities.

6.1.4.2 Maintain a current list of solvents that are being used for organic solvent cleaning activities. The list shall include the following information:

6.1.4.2.1 The name of the solvent and its manufacturer's name.

6.1.4.2.2 The VOC content of the solvent expressed in grams per liter or lb/gallon.

6.1.4.2.3 When the solvent is a mixture of different materials that are blended by the operator, the mix ratio of the batch shall be recorded and the VOC content of the batch shall be calculated and recorded in order to determine compliance with the specified limits of VOC content, as applied.

6.1.4.2.4 The type of cleaning activity for each solvent that is being used in accordance with the applicable cleaning category specified in Table 5~~6~~ of this rule.

6.1.4.2.5 The quantity of solvents used for cleaning operations shall be kept on a daily basis.

6.1.5 Records Retention: The operator shall retain the records specified in Sections 6.1.1 through 6.1.4, as applicable, on site for a period of five years, make the records available to the APCO, ARB, or EPA, and submit the records to the APCO, ARB, or EPA upon request.

6.2 Labeling Requirements

Adhesive products, sealant products, and solvents subject to this rule shall be labeled pursuant to Sections 6.2.1 through 6.2.3 as appropriate. ~~Effective on and after January 1, 2012, sealant products subject to this rule shall be labeled pursuant to Sections 6.2.1 through 6.2.3 as appropriate.~~

6.2.1 VOC Content: Each container of adhesive product and sealant product subject to this rule shall display the maximum VOC content of the adhesive product or sealant product as applied. VOC content shall be displayed as grams of VOC per liter of adhesive product or sealant product, excluding water and exempt compounds, or grams of VOC per liter of material for low-solids adhesive products. Each container of solvent subject to this rule shall display the maximum VOC content (in grams of VOC per liter of material) as supplied.

6.2.2 Thinning Recommendations: Each container of adhesive product or sealant product subject to this rule shall display a statement of the manufacturer's recommendations regarding thinning, reducing, or mixing of the adhesive product with any other VOC containing material. Mixing recommendations shall specify a ratio which results in a compliant, as applied, adhesive product, or sealant product.

6.2.3 Manufacturers of any solvents subject to this rule shall indicate on the solvent container, or on a separate product data sheet or material safety data sheet, the name of the solvent, manufacturer's name, the VOC content, and density of the solvent, as supplied. The VOC content shall be expressed in units of grams per liter (g/L) or pounds per ~~lb/~~gallon (lb/gal).

6.3 Test Methods

The analysis of solvents, adhesive products, sealant products, and control efficiency shall be determined by the following methods:

6.3.1 The VOC and solids content of adhesive products, sealant products, and solvents shall be determined using EPA Method 24 or other test method approved by ARB, EPA, and the APCO.

6.3.2 The capture efficiency for a VOC emission control system's collection device(s) shall be determined according to EPA's technical document, "Guidelines for Determining Capture Efficiency," January 9, 1995 and 40 CFR 51, Appendix M, Methods 204-204F, as applicable, or any other method approved by EPA, ARB, and the APCO.

6.3.3 The control efficiency of a VOC emission control system's control device(s) shall be determined using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25B for measuring total gaseous organic concentrations at the inlet and outlet of the control device. EPA Test Method 18 or ARB Method 422 (Determination of Volatile Organic Compounds in Emissions from Stationary Sources) shall be used to determine the emissions of exempt compounds.

6.3.4 For VOC emission control systems that consist of a single VOC emission collection device connected to a single VOC emission control device, the overall capture and control efficiency shall be calculated by using the following equation:

$$CE_{CAPTURE\ AND\ CONTROL} = [\ CE_{CAPTURE} \times CE_{CONTROL}\ ] / 100\ \%$$

Where:

$CE_{CAPTURE\ AND\ CONTROL}$ = Overall Capture and Control Efficiency, in percent

$CE_{CAPTURE}$ = Capture Efficiency of the collection device, in percent, as determined in Section 6.3.2

$CE_{CONTROL}$ = Control Efficiency of the control device, in percent, as determined in Section 6.3.3

6.3.5 Determination of Solvent Losses from Spray Gun Cleaning Systems

The passive and active solvent losses from spray gun cleaning systems shall be determined by using SCAQMD "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems" dated October 3, 1989. The test solvent for this determination shall be lacquer thinner with a minimum vapor pressure of 105 mm Hg at 20ºC. The minimum temperature shall be 15ºC.

6.3.6 Transfer Efficiency

Transfer efficiency shall be determined by one of the following:

6.3.6.1 SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989, or

6.3.6.2 Any other test method for transfer efficiency for which written approval of the EPA and the APCO has been obtained.

6.4 Multiple Test Methods

When more than one test method or set of test methods is specified for any testing, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of this rule.